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ABSTRACT

This paper looks at the international trend toward certification of sport coaches and, in particular, developments and obstacles toward certification in the United States. A look at developments abroad cites four common approaches to sport coaching certification with training falling into three focal areas: knowledge that is common to all sports, knowledge that is sport-specific, and practical experience. Representatives of each sport develop their own sport-specific curricula. Although standards may very from one country to another they are generally minimal. National coaching programs in other countries usually require no more than the equivalent of two days' work in class to coach inexperienced children and no more than 2-3 weeks work in class for certification to coach Olympic-level athletes. Following sections discuss the basic knowledge needs of coaches, their technological knowledge and skill needs, and their traditional conservatism and fear of technology. A discussion of concerns in developing an American certification program notes that physical educators are a major force in shaping certification efforts, and that realistic guidelines are needed as well as applied coach education programs for certification. A final section describes the National Association for Sport and Physical Education (NASPE) and its proposed standards currently under discussion. Contains 38 references. (JB)

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ED 381 522

Sport Coaching Certification as an International Educational Trend**

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Presented at a session of the National Association for Girls and Women in Sport,
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This paper is revised and expanded from three earlier papers, two with identical titles: "The Challenge of Technology in Sport Coaching Education," presented in an early version at the 11th International Conference for Technology in Education, University of London Institute of Education, London, England, 28 March 1994, and presented in a second version at the 10th Commonwealth and International Scientific Congress, University of Victoria, Canada, 11 August 1994; and a third paper with the title above, presented at the convention of the North Carolina Alliance for Health, Physical Education, Recreation and Dance, Greensboro, 17 November 1994.

Why Should We Care?

Before we discuss sport coaching certification, we need to be clear on why we should care about it. Why is this topic important? Because of the magnitude of the question: A 1984 study (Martens, 1988) of non-school sports among American children ages 6 to 18 estimated that more than 20 million children participate, fully 44% of the nation's youths. Furthermore, the National High School Federation estimated that over 5 million youths were members of high school teams.

The education of sport coaches is a critical need in a time when the potential of technology-inspired abuses of the training process is rising rapidly. As an example of the magnitude of that need, in the USA alone we have about 2½ million volunteer coaches, compared to ½ million professional or paid coaches. This scale is reflected in other nations around the world. Yet, coaches are required to meet minimal, if any, standards of knowledge related to coaching, teaching or the needs of children. Thus the impact upon young athletes is massive.

But what of certified coaches? Rog's study of high school coaches in Maine (as cited in Houseworth, Davis & Dobbs, 1990) found that up to 60% of coaches were non-certified teachers. Martens (1988) noted that only 13 states required even minimal certification standards, while most states will accept teaching certification in any subject as qualifying a person to coach any sport, though that number is finally beginning to rise (Partlow, 1994). As teachers drop out of the coaching ranks, increasing numbers of non-teacher coaches have been hired. We find a similar lack of standards for college coaches (Siegel & Newhof, 1992). We do at long last see a concerted, multi-group attempt to set national standards for high school coaches (A proposed, 1994).

At the same time, American education has changed. The physical education requirement has been vanishing from our nation while our profession has focused on discussing social issues and on forming more prestigious groups of scholars who have no interest in the requirement-- and little in the profession itself. The loss of the requirement translated to a loss of real jobs; the loss of jobs meant fewer majors. The loss of majors meant fewer college teachers-- and eventually changes in the major itself. Coaching theory courses are disappearing from our colleges. Where those courses survive, few students enroll, because the courses are not required for employment.

Again, why should we care? A study of adults who volunteer to coach youth sports (Martens & Gould, 1979) produced several findings that should increase our concern. The authors noted that

> The most unsettling finding was that coaches with formal training, more coaching experience, and a career in education were more like Sam Selfish than those with no formal training, less experience, and other occupations. This does not speak well for either formal training or coaching experience, and certainly does not reflect well on the orientation of educators toward children's sports (p. 88).

So far I've discussed certification as an American concern, a problem for schools across the United States. However, we are not the only sport-loving nation. This is a concern for many nations. Most nations do not foster highly-organized school programs in competitive sports as we do in the United States. As a result, they are developing certification programs outside the academic setting. As an example of the magnitude of international interest in this topic, I ran a quick database search on

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Sport Discus, available online or on CD-rom from Canada. It contained 1,647 references that related to coaching certification. Indeed, it held 295 references to the topic in the 1990s alone, representing books, articles, papers and studies on programs in nations such as Australia, New Zealand, Canada, the United Kingdom, Germany, Japan, Hong Kong, Switzerland and Finland.

As I noted, most nations do not organize their youth sports primarily through the schools. As a result, coaching education and certification programs are centralized nationally, usually planned and operated under the auspices of the national government. While the United States has dragged its feet on this topic, which was already old when I was a graduate student 25 years ago, other nations have researched, designed, and implemented very good programs to educate, test and certify their coaches.

Now you might ask why the United States did not follow this route years ago. Why did we as physical educators, as teachers, as coaches, fail to develop these programs? Unfortunately, American professional physical education has a tradition of hostility toward school athletics. Our academic side has always looked down its nose at sport. We traditionally rejected sport-related research under the guise of "academic respectability." It was a by-product of what I call the "lab coat" syndrome: "I'm not really one of them, I'm a scholar-- see, I have rats. I'm really sort of a medical-type person-- really."

This was a common point of view, even though most of us entered the field through our interest in sport. We are a field that suffers from "academic envy." We preferred to put on lab coats and test rats, rather than look at the vast opportunities for legitimate, valuable research in sport-- from children's sport through elite sport. This sad tradition is now correcting itself somewhat. The question is, is it too little, too late? We see a leap for a new justification for our existence as the demand for teacher education diminishes-- much like many of my fellow sport historians who have reconstituted themselves as sport management experts in recent years.

Physical educators should be the major force in training coaches. Instead, we are running to find the head of a parade that formed largely despite our efforts. I will take a strong stand on what we should not do: This should **not** become a bogus, "now we can generate some serious FTE," over-inflated program such as Schools of Education have traditionally promoted. That approach has already been discredited by the public. They will not buy it, and we should not be so foolish as to come up with that time-worn substitute for quality.

But now-- what is the state of coaching and certification today? I have already described the need and the trends. Let's return to the international level: what do they require for certification?

International Coaching and Certification Today

There are four approaches to sport coaching certification that are currently used in other nations:

1. National certification by the individual sport (by the National Governing Body, or NGB)
2. National certification by an all-sports coaching education group (which may be a consortium of the NGBs)
3. National licensing by a governmental agency (Japan)
4. Local licensing by a governmental agency (United States)

We see elements of three of these approaches in the United States, which operates with a conflicting mish-mash of non-profit and for-profit agencies, public and private, single-sport and cross-sport. An effective program will have a single organization that sets consistent all-sport standards, even if the curriculum for a given sport is developed and implemented under the auspices of that sport.

One difficulty in developing coaching education standards is that the knowledge and experience needs can vary considerably from one sport to another. Further, some sports are well-developed globally, resulting in a large body of knowledge regarding the traits of the skilled coach. Other sports are regional or national, with far less agreement on what coaches need to know or to be able to do. Thus, the task of developing standards is more difficult for some sports than for others.

The training of prospective sport coaches falls into three focal areas:

1. Knowledge that is common to all sports
2. Knowledge that is sport-specific
3. Practical experience

The easiest part of developing a program to certify coaches is fostering agreement on what all coaches need to know, and the level of expertise that they need to develop in each area. The all-sport group can set (at best) general standards for the practical experience component, which varies from the simple clocking of hours worked as a coach to supervised coaching experiences. The separate sports must decide for themselves what knowledge (and how much of it) is needed in their respective focal areas.

In the national coaching schemes, representatives of each sport develop their own sport-specific curricula, while representatives of a variety of sports (along with sport science and pedagogy specialists) develop the all-sports or common parts of the curriculum. Where national certification schemes have been developed, they usually have produced scholarly research that demonstrates the theoretical underpinnings of the content and the methodology involved in the certification process. They further require regular studies of those people who are certified, to validate the program and indicate needed changes in it. In short, the process is the same as developing programs of teacher certification, or, indeed, of licensing any type of endeavor.

The standards vary considerably from one country to another, as does the number of people certified by the schemes. Just as in teacher education, there has been much resistance to new programs requiring certification and licensure. Not surprisingly, the systems that are most strict in requiring that practitioners be licensed or certified generally are forced to "grandfather" many of the complainants. That is, they provide a mechanism for people with years of experience to be certified automatically. This results in the protection and survival of a certain number of experienced incompetents, but it is the price of minimizing resistance to the new process.

It is not that such standards are onerous. In most cases, the standards are minimal for beginning coaches. This is (in part) to encourage the entry of new coaches into the sport, but also because a coach working with low-skilled athletes or working as an assistant does not require higher-order knowledge to do a competent job. This statement is not meant to minimize the cognitive skills of the experienced coach; it simply indicates the minimal requirement for a competent performance of the beginning coach's duties.

One beginning coach certification standard is 6 hours of instruction. Indeed, national coaching programs generally require no more the equivalent of two days' work in class (16 hours) to coach inexperienced children and no more than 2-3 weeks' work in class (80-130 hours) for certification to coach Olympic-level athletes (Campbell, 1991; Tamura, 1993). The only non-class work is on-the-job experience.

Most international programs have up to five recognized levels of certification, rising in their difficulty and comprehensiveness as the coach is trained to deal with older, more experienced, more highly skilled, and more motivated athletes. The first level is generally designed for beginning coaches who work at little more than recreational levels with younger children, while Levels 4 and 5 are generally aimed at coaches of "high-performance" athletes, those competing at the national and international levels (Haslam, 1990).

The major problems are that (1) most agencies require no certifiable level of education or inservice experience and (2) no widely accepted standards of coaching education exist. The basic knowledge needs in the sport sciences do not change rapidly. The principles of training tend to hold true. It is the knowledge needs in technology that change with regularity--and they are less critical to skilled, successful coaching.

Basic Knowledge Needs of Coaches

We do not have consensus on the basic knowledge needs of coaches (Siegel & Newhof, 1992). This problem results in part from the sometimes hostile split between professional physical education and athletics. Some of the weaknesses of coaching education are visible in teacher education, for "many persons are given credentials without having been changed in any way by the program" (Siedentop, 1990).

Sport coach education generally falls into three areas (Campbell, 1991): core knowledge, sport-specific knowledge, and practical experience. The most commonly accepted knowledge components are: exercise physiology, sport psychology, growth and development, skill instruction and learning, training plan development, nutrition, safety, injuries, the coaching role and tasks, and ethics. Hawes presented an example of a Canadian university program for coaching education (1986). McNaught-Davis and McFee (1986) suggested developing an accredited profession, though teacher education accreditation has not had a noticeably positive impact on the level of student learning in the USA over the last few decades. Even so, research shows that more advanced coaches feel the need for improved coaching education (Gould, Giannini, Krane & Hodge, 1990). Many aspects of certification programs and their application for the United States have been discussed (Sawyer, 1992).

At the same time, we should not overlook the importance of hands-on practical experience. The knowledge imparted in coaching courses and at clinics does not necessarily result in effective teaching on the practice field (Telfer, 1986, 1994). Unless we include a focus on how the coach communicates with athletes and applies the technical training to the sport setting, we may find that only a small number of those athletes receive effective coaching. To learn what coaches need to know or to be able to do, we must study what the best coaches do in practice (Rockwell, 1994).

We should not overlook the need to develop sport coaching as a profession. This means a recognized occupation that applies an acknowledged cognitive base, and applies and polices standards of knowledge and conduct, including a formal code of ethics (Seefeldt, 1992; Treadwell, 1986). This is a stage that has failed to appear in most nations. Instead, coaches are still viewed as poorly-educated, backward individuals who sometimes abuse their athletes, and who often have little real knowledge of the science of training. In today's media an intelligent, temperate, well-educated coach is presented as an aberration, rather than the norm. We need to put this backward cultural icon to rest, once and for all. But we cannot simply declare that the image is no longer true. The image comes from our actions in the marketplace of ideas, rather than from the fervent desires of a group of wishful image-makers in the profession. The public must see the changes before it will view coaches differently.

Technological Knowledge and Skill Needs of Coaches

Just as technology changes rapidly, so do the technological skill needs of coaches. While sport coaches do not need high-level technological skills, the greater their understanding of technology and their skills in using those technologies, the more likely that they can produce superior athletes. However, technologists should not overlook the clear signs of intuitiveness in most highly successful coaches. Coaching is still more of an art than a science.

The need for technological literacy is not challenged (Hunter, 1992). The question is the measure or content of that literacy.

At the lowest levels of performance, most technological needs are limited. The coach needs to know how to use computers for record-keeping and reports, while using such tools as videotape for performance analysis. This sounds very limited, but the coach who shows the least range in using such technologies will be put at a serious disadvantage. The ability to learn as a coach and to improve sport performance depends upon the ability to access, evaluate and assimilate new information on a constant basis. Proper use of technology makes this possible, allowing coaches to improve far more rapidly than in the past.

Coaches can use modeling techniques to evaluate elite performance, then design training to emulate it and produce better results (Banister, 1991). Young athletes can be evaluated by expert systems that estimate their performance potential (Bloomfield, 1992). Coaches now use more scientific tools of measurement and evaluation of training, which requires better technology in measurement and in treating data (Hiskiadze, 1989). We may see more effective teaching utilizing hypermedia (Gaines & Vickers, 1988) and eventually holographic imaging for teaching by example. Coaching with expert systems is creeping into our horizons (Vickers & Kingston, 1987; Freeman, 1992b). When we have virtual reality (Rheingold, 1991; Aukstakalnis & Blatner, 1993), will we have virtual practice?

Planning sport training has become far more complex than in the past (Bompa, 1994; Freeman, 1991b; Janssen, 1987; Kurz, 1991). We encounter ever-higher levels of ethical concerns (Freeman, 1991a). Unfortunately, this confronts us with a common problem with technology.

Conservatism & Technophobia: Coaching Traditions

Most coaches tend to be conservative and technophobic (Ogilvie & Tutko, 1967). They prefer to coach as they were coached. They are suspicious of change. Technology means not just change, but significant change. Furthermore, our fiction treats technology as dangerous to humans, with characters ranging from Frankenstein's monster to the Terminator (Freeman, 1992a). Our worship of the amateur is our expression of longing for a dimly-lit, vaguely remembered past, before technology reared its ugly head and gave us Goldengirl and a yellow-eyed Ben Johnson--the fiction and the reality, two faces of a single fear. Our problem is convincing coaches and their athletes to benefit from the legitimate enhanced opportunities offered by technology.

Concerns in Developing a Unified American Certification Program

Physical education as a major force. Physical educators have long argued that the field should be a major force in providing sport coaching education programs, as it was in the past when most coaches below the college level were the products of college teacher education programs, certified to teach, even if not to coach. It is true that the profession must be involved in a commitment to produce youth coaches who are ready to take their place in the field.

However, we must produce "real world" guidelines and training. Coaching is **not** a theoretical field-- it is an applied field. Other nations have learned that as they began to implement national programs to train and certify

coaches there has been **great** criticism of putting scholar/theoreticians into positions of authority in coaching programs. Coaches have in the past rejected many attempts at making coaching more scientific. Their reason is simple, and valid: those "specialists" had no real-life experience, which often resulted in their "expert" advising producing negative results. In short, they had expert knowledge, but they were "application idiots".

As an example, the Swedes once produced the best middle distance runners in the world, all of whom trained with a dominantly *fartlek*-based system. In the 1950s Swedish physiologists declared that pure interval training produced superior performances, based on their experiments with laboratory rats. The Swedes changed their training methods, following the lead of the physiologists-- and have never led the world as runners since then. As U.S. Olympic Coach Bill Bowerman, an Oregon native and coach of two dozen 4-minute-milers, commented, "I find it hard to believe that you can get a rat to do really serious *fartlek* training."

As a coach I have spent countless hours standing in cold water early on a winter morning, or modifying training sessions because of unanticipated changes in training factors (weather, illness, injury, scheduling problems, etc.). I am well aware that advice from a sport scientist would have been of no use to me on those occasions. I have told my own students that in the early stages of their own coaching experiences they will learn at the expense of their athletes. They will make mistakes that will affect their athletes in a negative way-- and they will become better coaches for the experience. It isunavoidable; it is reality.

The experienced coaches are a critical part of the process of developing programs to train sport coaches. Unlike most sport scientists, they have dealt with the confounding details of real life, when you cannot simply factor out a problem. We recognize that physical education methods teachers must regularly have real-life experience in the schools. Why have we been too stupid to realize that the same is true for an exercise physiologist or sport psychologist who wants to give "expert" training advice?

We need forward-directed research, not backward. After distance runners began to run well using carbohydrate loading, the researchers "proved" it could theoretically be useful. Coaches want sport scientists to do applied research that tells them what athletes should do, and why they should do it, but **before** the athletes have figured it out for themselves. Instead, American researchers have said, "Here is the research that we did; now, you figure out how [or if] it can be applied."

In short, this is an outgrowth of the American dichotomy of respecting successful coaches while thinking of coaches as ignorant; of worshipping great athletes, while not considering elite sport worthy of the applied research that has produced great successes for other nations. We need to change the American mind-set from sport as a "fun" way to waste time into a vision of sport as a venture that requires a complex of knowledge, research, and experience for success.

The need for *realistic* guidelines for certification. We need to develop realistic guidelines for certification, guidelines that understand that most coaches do not have the time or money for long-term, expensive, university-based training programs. If the coach's pay is a few hundred dollars a year (or nothing, for volunteers), we should not require an undergraduate minor, or attendance at clinics that cost $500-1,000 in registration, materials, and travel costs. This is totally inappropriate, and it will not work, at least not in providing the number of coaches that we need.

Out of curiosity I attended a Level I certification clinic in track at the University of South Carolina in early 1994. It was one of a series of weekend clinics sponsored by U.S.A. Track and Field (the NGB for athletics) to train track and field coaches. It was an excellent clinic, with 18 hours of intensive instruction by experienced coaches. It included an internationally-produced textbook for beginning track coaches, plus extensive clinic notes. It was concluded with an open-book, take-home standardized test of 200 multiple-choice questions that covered pedagogy, nutrition, psychology, and motor skill learning as well as the standard track and field events.

It was, if anything, overkill. As a very experienced coach (one of my books was a major reference on periodization), I still found it almost confusing-- so much to cover, and so little time. A wealth of material. Many of the students were volunteer coaches, but they had to pay $100, plus cover their costs of travel, lodging and meals. The Level II clinic will cost $500, plus travel (room and board are included), plus it requires your attendance for 8 consecutive days (Sunday to Sunday) at a summer camp. How many coaches can justify the expense, in money or time? And I am a supporter of the program-- I firmly believe in its value.

Human Kinetics Press figures a coach will pay about $20 for a book on the sport s/he is coaching-- no more than that. We need to be realistic about the line of balance between what we would like to require and what people will actually do. We need the numbers of coaches

first, because the kids are there today. Children will not stop growing and put their lives on hold until we decide how to educate enough coaches. Instead, they will grow up and support (or oppose) such programs based on the youth sport programs they encountered while growing up.

The need for *applied* coach education programs. We need programs for sport coaching education that are based on what coaches actually do (Martens & Gould, 1979; Vickers & Kingston, 1987; Gould, Giannini, Krane & Hodge, 1990; Rockwell,1994), with follow-up evaluation of those programs (Telfer, 1986; Haslam, 1990; Tamura, 1993; Davey, 1994; Rockwell & Latter, 1994). We cannot take coaching out of context, planning an educational program that is based on a theoretical model that does not exist in real life. Certification programs require input from coaches at all levels, though the highly experienced, very successful coaches are the most useful. As Gould, Giannini, Krane and Hodge (1990) note

> One of the most important themes arising from the findings was the importance of experiential knowledge and informal education in the development of the elite coach. For example, the coaches indicated that their coaching styles were most influenced by experience and by observing successful coaches, and least influenced by reading coaching books and journals and by taking courses (p. 341).

I have come to this conference after speaking at the Massachusetts Track Coaches Clinic. I have spoken at several other such clinics, both in this country and abroad, so I know that coaches are interested in learning. The difficulty, from their point of view, is cost and convenience. And what they always want is practical experience-- how does a successful person do it. You cannot have a coaching clinic with sport science specialists as the presenters and attract coaches. Coaches must deal with real life, and they want to hear from the people who have dealt with that same real life successfully.

NASPE Recommends an American Standard

The National Association for Sport and Physical Education [NASPE] (1994) is in the process of trying to develop standards for sport coach education for the United States. This laudable effort has included trying to involve both commercial and non-profit groups, sport-specific groups, all-sport groups, and educational entities. Their recommendations, which are being discussed in depth elsewhere at this conference, are worth our consideration. The full set of standards runs about 100 pages and is available (though currently out of print) from NASPE. I will discuss a simplified set of those standards.

The proposal comprises about 320 competencies, which are scattered across 37 basic standards, which in turn are scattered across 8 domains. The proposal also designates the coaches into five levels of coaching expertise, each of which includes all 8 domains and 37 standards, but only its appropriate share of the specific competencies.

Looking at the levels of coaching expertise, they are based on the coach's associated experience and the training needed to perform effectively at each level, as well as the requirements needed to advance to the next higher level.

Level 1	Entry-level volunteer coach 6 hours of formal instruction (146 competencies)
Level 2	Beginning volunteer coach; minimum of 1 season of experience 6 addition hours of formal instruction (196 competencies, 72 of which are new)
Level 3	Entry level of non-faculty, walk-on or intermediate coach at the interscholastic or youth level 30 hours of formal instruction
Level 4	Experienced, professional coaches with 1 or more seasons at the interscholastic or equivalent level Coaches who teach highly skilled youths of any age, or select or elite performers, regardless of age
Level 5	Highly experienced master coach at highest levels of youth, interscholastic, intercollegiate, national and international levels

The strength of these recommendations is their apparent recognition of the time/money problems of beginning coaches. The first two levels each require only six hours of formal instruction-- appropriate to a Saturday or Sunday local clinic. Even Level 3 requires only 30 hours of formal instruction, equivalent to two semester hours or three quarter hours of college course work.

While the number of competencies is extensive, it appears that they are more a reflection of very specific knowledge or experiential needs, rather than large tasks that must be accomplished. Otherwise, such a large number of competencies could not be covered in the 42 hours of formal instruction represented by the combined requirements of Levels 1 through 3.

Reactions to the NASPE Recommendations

I see an area of common need here, so I want to make a few general recommendations, based purely on my personal opinion, but backed by my 30 years of experience as a coach, as well as my experience as a physical educator and teacher.

1. We should not require university training or college credits as part of the certification process. They should be only one of the ways in which the standards may be met. We should allow coaches to meet the requirements in or through university programs, but not make that the only route.

   I say this in the hope that we can get away from the traditional university-oriented focus on the generation of FTE and faculty positions. We need to focus on a higher need here, that of youths needing competent coaches.

2. We should coordinate our standards and the certification process with the National Governing Bodies of all sports, and with the United States Olympic Committee, to develop a single standard of coach certification for the United States, instead of the current group of competitors for the coaching certification dollar. It may be as simple as certifying that each group's program (ASEP, PACE, etc.) meets the NASPE standard, and you will be certified if you go through any program that meets the NASPE standards. [This does **not** setting up a formal accreditation system, which would become a boondoggle.] Remove the confusion and financial competition from the process.

3. We should implement a unified, coherent program now. Let's quit this decades-long process of studying and arguing, and get a unified program accepted by all, and implemented by all. We have wasted too many years, and in doing so, we have cost our field much respect. We have the capabilities. It is time to demonstrate that we can apply them in a practical, successful way. Other nations have shown that they can do it, and do it well. We are several decades behind, so no further delay is justified.

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